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Survey of the World

The President The President finished his New England tour last week, and started on his Southern one, but he came desperately near losing his life at Pittsfield, Mass., through a collision between the carriage he was riding in and a trolley car. Having spent Monday in the Vermont cities, where he contented himself for the most part with short speeches, he crossed the line into Massachusetts, and at the end of the day arrived at Northfield, Mass., where he addressed the Mt. Hermon School and then spent the night as the guest of Dwight L. Moody, son of the famous evangelist. From Northfield the President went on through Massachusetts to Dalton, where it was planned that he should drive on Wednesday to Stockbridge, Mass. In the carriage with the President were only Mr. Cortelyou, the President's secretary, and Governor Crane, of Massachusetts. On the box with the driver was William Craig, the chief of the President's secret body guard. While passing through Pittsfield, Mass., at 9.30 A. M. it was necessary for the President's carriage to cross the electric railroad track near the Country Club. The carriage road crosses the trolley line in such a way that while both run somewhat parallel to each other just before the crossing is reached an embankment intervenes so that it would be quite easy for a carriage to get in a very tight place. The crossing is in a valley, but on the hill before this is reached it is possible for the President's party to have been seen below. On came a trolley car, however, at full speed, increasing its momentum on the decline, and the bell clanging loudly. Just then the lead horses of the President's carriage crossed the track, and the wheel horses had only time to follow when the car crashed into the coach near the front wheels. Craig was killed, the driver was knocked senseless, and the President and his companions were bowled over on the ground, and except for slight skin bruises about the hands and face all of them miraculously escaped. After it had been determined by the physicians that nothing of a serious nature had happened to the President he and his party took another carriage and drove on, but all speech-making was given up for the day. The motorman and conductor were put under arrest on a charge of manslaughter, but it is now said their trial will not come off till January 1st. The blame for the accident every one seems to think belongs solely to the carelessness of the motorman, who paid no more attention to the distinguished party he ran into than he would to an ordinary milk wagon. There is also considerable disposition to blame the President's coachman; the system which allows the President to travel in so unprotected a manner, and the Pittsfield Trolley Company, who, it is said, refused the request of the town authorities to have all the cars stop running while the Presidential party was passing through the town. Of course, much popular sympathy was shown for the President, and the usual cablegrams of grief have been received from all the crowned heads of Europe. The President then continued his journey to his home at Oyster Bay, and by the time he had reached there he had entirely got rid of the ill-effects of the accident. On Thursday evening the President started for the South, to be present at the national convention of the Brotherhood of Locomotive Firemen at Chattanooga. The same great crowds met him as on the

standing upright jammed between other blocks and in the way of the car, which seemed doomed to strike it with fearful force, throwing the passengers about, injuring and perhaps killing some of them.

The red-bearded man sprang forward with a crowbar and wrenched the block loose just in time to save the car. He sprang back in front of another car, which knocked him down and mangled him.

The accident which he prevented was precisely like that which had occurred a year before, and for which we had already paid more than $50,000.

I went down stairs to the president and made a fight for liberal treatment of this man who had done so much for us. I said and believed that it would pay to show employes that we recognized faithful service.

To my astonishment I could not even get him a $9 a week clerkship, where he could earn the bread of his family while he was getting his strength back.

Fighting the wolves, cheating the cheats and robbing the robbers was exciting, and at times exhilarating.

But tho this claim agent's field is the very native land of tricks I never could get used to playing them on poor people whose claims were honest and whose losses meant suffering for them and their children.

I tried vainly to convert the ruling powers to the belief that honesty was the best policy, but I failed, and I was not sorry, therefore, when the majority of the stock changed hands, and all of us, managers and heads of departments, were swept out to make room for a new lot.

Nature Study

By W. J. Beal, Ph.D.

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WHEN Goethe, the great German poet, was spending half his time in studying the metamorphosis of plants, his friends lamented the fact and urged him to spend more time in the flowery fields of literature and less in the flowery fields of botany. Long after this, when some enthusiast ventured to bring flowering plants into the class room for his students to examine, some professors of the old school stoutly questioned the propriety of such a proceeding. There were no traditions recognizing such an absurd practice. In the next step the study of botany consisted mostly in identifying and naming plants and in learning their uses in medicine.

To-day botany has become a broad and many-sided subject, attracting thousands of devoted students in high school, college and university. The value of the study as a means of gaining information, discipline and culture, and for giving pleasure to the possessor every day in the year, has long been recognized by most educators. This applies to children as well as to adults.

What has been said of botany pertains with much the same force to certain portions of zoology and geography, tho botany will always take first rank owing to the abundance and neatness of the specimens. The most sensitive person is not shocked in handling or in dissecting a violet or a geranium. To add a supposed charm for children to the study of these subjects, recently the term Nature Study has come into use. Nature Study is simply nothing more nor less than a study of Nature pursued according to correct methods.

To-day the editor of a magazine considers himself fortunate if he can secure a contribution from some one who can prepare an accurate and vivid description of the life history of some animal, or give his experience in the forest. There is much written concerning various attractive phases of life in the country. Amateur photographers help to record many charming rural scenes. There never was a time when people were so eager for such things. Probably no one in this country ever aroused greater en-

thusiasm in the study of natural history than Louis Agassiz, who became a professor at Harvard in 1848, fifty-four years ago. Beginning soon after the arrival of Agassiz in this country another series of events have done much to make natural history popular. Forty-five years ago the Michigan State Agricultural College opened its halls to students who were supposed to desire to learn improved methods of growing field crops, fruits and live stock. Other colleges in other States were soon opened. The United States Department of Agriculture was not organized till five years later; it did not even exist in name, but existed as an appendage to the Department of the Interior. Its reports were the butt of every learned man as well as those engaged in farming. Passing over the long struggles of forty-five years, we find the United States Agricultural Department now spends $6,000,000 per year in making creditable explorations, experiments and reports covering almost everything that pertains to rural life. The agricultural colleges also experiment and besides teach many students. As an evidence that these forces have revolutionized the minds of people toward rural life, I note the trend of a book of over 500 pages, published by Ginn & Co., under the title "Nature Study and Life." It is apparently the best one of many books touching this line of topics and was prepared by Clifton F. Hodge, Ph.D., assistant professor in Clark University, Massachusetts.

"Nature study is learning those things in Nature that are best worth knowing, to the end of doing those things that make life most worth the living."

The most remarkable feature of the book is the economic or utilitarian trend of the topics treated. He says:

"My point is that nature study, or elementary science, for the public school ought to be all for *sure human good.*"

He recommends the study of children's animals and pets, injurious insects, such as the codling moth, plum curculio, cabbage butterfly, mosquitoes, Hessian fly, house fly, clothes moths, carpet beetles, fleas, ants with their natural enemies and artificial remedies. He asks for a list of plants that each child cultivates at home; he has a school exhibit of potted plants; children prepare a flower calendar, learn to recognize plants that are poisonous to touch or when eaten; each makes a list of all the weeds he knows; each brings a pot of earth and finds what grows therein; he estimates the number of seeds produced per plant. They examine clover seeds for the different seeds of weeds. The children make a school garden, learn the A, B, C of landscape gardening; they smell, taste and handle and discuss which is the best kind of fruit for different purposes; they get up a fruit show, in which the children are the judges and writers of reports. They germinate seeds and grow plants in great variety, cross fertilize flowers, notice fruit spurs, reproduce plants by layers, grafting, budding, and try their hands at pruning.

They observe bees while visiting flowers, and learn the results to bee and plant. Frank Benton is quoted. While a student at Michigan Agricultural College he showed himself a genius in bee culture, tho he failed to domesticate the bumble bee and induce her to adopt the artificial hive system as all good bees should. Mr. Hodge placed a nucleus of a hive of bees in the school room or near it for observation. Pupils note the relative peculiarities and value of different races of bees. They observe ichneumon flies as they hunt for larvæ in which to deposit their own eggs and thus serve the lover of plants a good turn. Lady beetles, lion beetles, tiger beetles, dragon flies, demsal flies, caddis flies, butterflies, cheese flies, and many others are liable to be observed and grown under the eyes of young school children.

The aquarium is indispensable and in it young frogs and toads and newts are reared and watched from the egg to the young hopping or crawling animal. The way a toad behaves is discovered, and on the side of public economy it is found to be one of the most important animals we have. Of course our native birds cannot be overlooked by eager children studying nature. The whole topic is brimfull of interest awaiting watchful eyes of boys and girls in and out of school. The nests, the eggs, the food, the likes and dislikes of every species, are books filled with good stories from cover to cover. Taming and feeding of birds is attempted, noting the kind and amount

of food a young bird consumes in one day.

Elementary forestry claims attention, the kinds of trees, the modes of distinguishing each species, the growing of the seeds, their modes of distribution, their care, their enemies and diseases, their uses.

Earth worms, hair worms, slugs and snails are found, fed and studied. As tho these were not enough to occupy the busy children, Mr. Hodge gives plans for lessons on ferns, mosses, liverwort, lichens, algæ and (would you believe it?) on mushrooms, yeasts and bacteria.

Delos Fall, now Superintendent of Public Instruction for Michigan, believes that teachers of agricultural colleges should work with others in conducting teachers' institutes, and there train them for work in nature study. He believes this college, where there are orchards, ornamental trees, green houses, and a botanic garden, should provide courses for training teachers. If Mr. Hodge's plan is the right one, there can be little doubt that Superintendent Fall's suggestions are also correct.

The above is a mere enumeration of some of the topics proposed for study by children, as outlined by Mr. Hodge. That such courses are profitable when well taught I have not the remotest doubt; that they have been well taught by Mr. Hodge is the testimony of President Hall, but it would be the hight of indiscretion for more than one school teacher in ten thousand to attempt to teach more than one-tenth of the variety of work he has compassed within 500 pages. I have been a teacher of botany for nearly forty years, and during eleven of that period a teacher of horticulture also. I have taught many students in all these years, but I fear there are very few of them who could be safely trusted to train young pupils in more than half the topics enumerated by Mr. Hodge.

If teachers could only keep their mouths shut to most of the numerous questions asked by eager children more of them would succeed; but they won't do that. Most people delight to answer questions; it displays their wisdom; it is a satisfaction to grant favors of this kind, but when they attempt to answer fifty or more questions a day concerning such a great variety of things, many of the answers will be mere guesses, and will do much more harm than good. Caution, care, patience, reticence are needed by teachers of nature.

It will be very much better, especially till experience is gained, to compass a small or limited field, including topics only, which have previously been thoroughly studied by the teacher.

In any case great tact is required to lead the children on, keep them interested and encourage them to make discoveries original with them. Teachers must not pretend to know all nature; if they do they are mere pretenders, for no one knows half there is to be learned about most common plants or animals. There is great need of more good teachers for this work and better pay will produce them in time.

Darwin was a patient observer, and during his day, if not to this day, he knew more about the pollination of orchids than any other person, and yet in 1862 he wrote:

"The more I study nature the more I become impressed with ever-increasing force with the conclusion that the contrivance and beautiful adaptations transcend in an incomparable degree the contrivances and adaptations which the most fertile imagination of the most imaginative man could suggest with unlimited time at his disposal."

Twenty-one years ago, when C. W. Garfield was secretary, the Michigan Horticultural Society made a strenuous effort to induce teachers of rural schools to aid the pupils to plant and care for flower gardens. Directions were printed and distributed with a gift of seeds to districts willing to undertake the experiment.

Here were some of the chief difficulties: 1. Very few of the teachers knew anything about the details of managing flowers and they did not care to undertake any such work. 2. Most of the schools changed teachers once a year, or oftener, which would be fatal to carrying out any plan from year to year. 3. Few of the teachers made any pretense of teaching such subjects in their schools. 4. In many cases, a vacation occurred at the time when the land should be prepared and planted, and another vacation followed a summer term before many of the plants had completed their growth for the year.

In comparatively few instances was the school garden reported a success, but in nearly all cases the results did not seem to warrant the outlay of energy and worry of the members of the Horticultural Society. The project was soon abandoned.

A few years ago the State of New York made a liberal appropriation for the introduction of the elements of agriculture or horticulture in the district schools. The work was vigorously pushed in the most favorable regions of the State with partial success, but soon abandoned, because the result did not warrant the effort necessary to success. More recently one of the leaders of this work said in a public address:

"We have introduced agriculture into the common schools, but we call it by another name, viz., Nature Study. The best results of this effort were shown in schools of towns and cities, because there were to be found the teachers best qualified for such work."

Starting with the city schools, it is expected in time to work down to the country schools, provided they are remodeled by uniting a number of small schools to make one good, strong, graded school out of several weak ones. The great importance of the study of nature in schools has become too well established to permit the interest to die out. With continued effort it cannot be long until no school can be called good where this subject doesn't occupy a prominent place in the schedule.

Thirty years ago a small volume was prepared by Asa Gray, entitled "How Plants Behave." It is still considered an excellent book for persons who are teaching botany in common or in graded schools. The headings of the chapters are: "How Plants Move, Climb and Take Positions;" "How Plants Employ Insects to Work for Them;" "How Certain Plants Capture Insects."

For some years past Mrs. J. M. Arms Sheldon has had charge of nature study in the schools of Boston, Mass. I quote a portion of what she prepared at my request:

"Nature study is simply the study of nature, not the study of books. It is a course of nature lessons especially adapted for elementary schools. Minerals, rocks, plants and animals are the necessary materials for such lessons. The method of study may be expressed in three words, observation, comparison, inference. The child must be made to see the object he looks at, and to this end he tries to draw it and to describe it in writing.

"If the course in nature study for the school room has been wisely planned the specimens chosen can be compared so that the children are able to pass from the observational lessons to comparative, and, finally, to inferential work. For instance, if a starfish and sea-urchin are compared; a clam shell and an oyster shell; a lobster and a crab; a grasshopper and a beetle; a butterfly and a bee, excellent results follow, provided always that the problems set for the children to work out are within their comprehension. If, on the other hand, the lessons are given in the following order: A robin, a clam, a grasshopper, a starfish, a piece of coral, it is obvious that little good comparative and less inferential work can be done. Comparative work is mental training, which, combined with the observational training already spoken of, gives a certain degree of mental power. This power gained in the early years increases with continued effort. Fortunately, this work is recognized as one of the potent agencies in producing efficient men and women equipped for a life work that shall make for the betterment and enlightenment of humanity."

Don't tell pupils much, but induce them to do the work. Don't give lectures and tell stories about such things nor permit others to come in and do so. Don't ask a lot of direct questions, inferring the nature of the answer. Don't waste energy in giving all sorts of namby pamby or baby names of things to arouse the fancy of pupils, such as "Baby beech leaves half awake." Don't be afraid of introducing now and then a technical word when needed, as children can learn them more easily than most older people; it won't hurt them and they like it.

Don't tell them just what to look for, but give only a very few broad hints of things, and not even these till the pupils have all made an earnest effort. Don't pretend to know very much. Don't give them books or show pictures with the expectation that you are teaching pupils to see.

Do study the whole of a thing instead of a piece of it whenever practicable, and let each have a specimen.

The teacher can't know too much about a thing that she has actually studied. Be very careful not to make a misstatement.

Do remember that living plants or ani-

mals live, move, grow, and reproduce their kind and are more interesting than inanimate objects. A climbing vine, the opening and closing of leaflets, the behavior of insects while seeking food, the effect of light on plants, the way plants travel, the way they protect themselves, are excellent topics here named in a wholesale way.

Original research is the thing to strive for. By all devices do strive to secure the results of the combined observations of all members of the class before you let them know your own views on the subject, and even then parts of the work may be left with pupils for further investigation.

In preparing teachers require them to do considerable real good work and not spend very much time on advice about methods. And, finally, secure and retain competent teachers, and all the rest will follow in nature study; without such teachers little good can be accomplished.

AGRICULTURAL COLLEGE, MICH.

Has Acting Declined?

By James A. Waldron

[In view of the fact that Mr. Richard Mansfield has just written a much-quoted and pessimistic letter to the press on the continuing deterioration of acting, this article by the managing editor of the *Dramatic Mirror*, the leading theatrical publication in America, is of especial timeliness.—EDITOR.]

IS the art of acting decadent? And would not this question suggest itself to the mind of the average person superficially familiar with the traditional literature of the theater, after a round of the theaters to discover the best as well as the worst that the stage now offers?

We may doubt the verity of the records that extol the work of the so-called "great" actors of the remoter past, but we cannot so question the memories of living grandfathers, who now and then awaken from passive endurance of matters amazing and only half comprehensible to them into lively enthusiasm as they relate how Edwin Forrest, or the elder Booth, or Charlotte Cushman, or the French woman Rachel, or the English Macready achieved this or that stirring, thrilling and astonishing effect in some *rôle* of the classic drama. When such memories linger so tenaciously they must have some basis of fact. Yet we find little or nothing in the theater of to-day to inspire like wondering praise of players. Is it the fault of the actors, or of their mediums, or of the system by which actors now are raised into prominence?

We may admire the finished art of Joseph Jefferson, and contrast wonderingly the perfection of his elocution with the slipshod style of other actors of accepted genius; and this matter of elocution, without doubt, has a more vital relation to the question here considered than any other thing. When we see Jefferson as Rip Van Winkle we forget the impossibility of the story in which that classic scamp figures, and the supernatural features of the play take on a verisimilitude because of the reality of "Rip" himself. Yet in the end Jefferson remains essentially a comedian, whereas the really great actor must excel both in comedy and tragedy. Jefferson's admirable but restricted art rests largely in his natural revelation of characters. Elocution has fallen into disrepute of late years because so many of its professors are ignorant of its essential purpose. It has come to be considered as a pompous and artificial style of reading, whereas in reality it is a close simulation of nature. Anciently elocution embraced style itself and the whole art of rhetoric, but now it rightly means, and in the times of the old actors it actually and practically meant, the delivery of one's own thoughts or the thoughts of others in a natural manner. One thing that the stage of this time lacks is elocution.

One hears now and then the sapient declaration that if Edwin Forrest should appear on the stage to-day he would not be tolerated on account of the robustness of his method, the inference being that his art was too coarse for this day. If Forrest were to reappear in a "society